

CLAIMS

1. An image processor for processing a video signal, characterized in comprising:

aspect ratio information acquisition means for acquiring aspect ratio information about an original video signal;

aspect ratio conversion means for carrying out a process of aspect ratio conversion based on the acquired aspect ratio information in such a manner that the roundness of an image of the original video signal becomes 1;

background signal generation means for generating a video signal serving as background of the video signal that is the main image; and

video signal combination means for executing a process of combining the video signal and a background signal which both have been subjected to aspect ratio conversion.

2. The image processor according to claim 1, characterized in that

the aspect ratio information acquisition means acquires the aspect ratio information based on identification information added to the input video signal.

3. The image processor according to claim 1, characterized in that

the aspect ratio conversion means has an operation mode in which the aspect ratio of the video signal is changed automatically based on information about the input video signal,

and an operation mode in which the aspect ratio of the video signal is changed using a fixed scaling factor determined without referring to an input signal.

4. The image processor according to claim 1, characterized in that

the aspect ratio conversion means changes the aspect ratio of the original video signal by pixel number conversion.

5. The image processor according to claim 1, characterized in that

the aspect ratio conversion means changes the aspect ratio of the original video signal in such a manner that the input image has roundness of 1 and has the maximum size fitting in the selected screen.

6. The image processor according to claim 1, characterized in that

the background signal generation means performs signal generation using the same signal format as that of the video signal generated by the aspect ratio conversion means, the generated background comprising images derived by a program filling in a rectangular region, images created in the bitmap format or the JPEG (Joint Picture Experts Group) format, or a combination of these.

7. The image processor according to claim 1, characterized in that

the video signal combination means determines the size

of the video signal.

8. The image processor according to claim 1, characterized in further comprising

recording means for recording the video signal created by combination of images onto a removable recording medium.

9. The image processor according to claim 8, characterized in that

the aspect ratio conversion means carries out aspect ratio conversion with respect to the original video signal in such a manner that the image recorded by an external device with a recording media loaded therein has roundness of 1 and has the maximum size fitting in the particular screen reproducing the video signal.

10. The image processor according to claim 8, characterized in that

the background signal generation means generates a background signal of a size the same as the screen that is selected for reproducing the video signal recorded on the recording medium in the external device, or a size needed for combination of video images.

11. The image processor according to claim 8, characterized in that

when the image after conversion by the aspect ratio conversion means has the aspect ratio different from the preset aspect ratio at the time of recording, the video signal

combination means adds the background signal around the video signal that is regarded as main to generate an image of any desired aspect ratio to matching the two.

12. An image processing method for processing a video signal, characterized in comprising

an aspect ratio information acquisition step of acquiring aspect ratio information about an original video signal;

an aspect ratio conversion step of carrying out a process of aspect ratio conversion based on the acquired aspect ratio information in such a manner that the roundness of the image of the original video signal becomes 1;

a background signal generation step of generating a video signal serving as background of the video signal that is the main signal; and

a video signal combination step of combining the video signal and a background signal which both have been subjected to aspect ratio conversion.

13. The image processing method according to claim 12, characterized in further comprising

a recording step of recording the video signal resulting from the signal combination onto a removable recording medium.

14. The image processing method according to claim 13, characterized in that

the aspect ratio conversion step carries out the process of aspect ratio conversion with respect to the original video

signal in such a manner that the image recorded in the media in the external device has a roundness of 1 and has the maximum size fitting in the particular screen reproducing the video signal .

15. The image processing method according to claim 13, characterized in that

the background signal generation step generates a background signal of a size the same as the particular screen generating the video signal recorded on a recording medium in an external device, or a size needed for video image combination.

16. The image processing method according to claim 13, characterized in that,

in the video signal combination step, when at the time of recording the image after conversion has an aspect ratio different from the preset aspect ratio, the background signal is added around the video signal that is the main image to generate an image of the preset aspect ratio.

17. A computer program written in a computer-readable format to execute on a computer system a process of processing a video signal, characterized in comprising:

an aspect ratio information acquisition step of acquiring aspect ratio information about an original video signal;

an aspect ratio conversion step of carrying out a process of aspect ratio conversion based on the acquired aspect ratio information in such a manner that the roundness of the image

of the original video signal becomes 1;

a background signal generation step of generating a video signal serving as background of the video signal that is the main image; and

a video signal combination step of combining the video signal and the background signal which both have been subjected to aspect ratio conversion.